

SERVICE MANUAL

COMPACT DISC CARRY
COMPONENT SYSTEM

- BASIC TAPE MECHANISM : ZZM-2 YPR3NF
- BASIC CD MECHANISM : DA11T3C

This Service Manual is the "Revision Publishing" and replaces "Simple Manual"
CA-DW537<U(S),LH(S)>(S/M Code No. 09-003-342-1T1).

SPECIFICATIONS

LH MODEL

Tuner section

Frequency range, antenna — FM: 87.5 - 108.0 MHz Rod antenna, AM: 530/531 - 1,710/1,602 kHz (10/9 kHz step) Ferrite bar antenna

Deck section

Track format — 4 tracks, 2 channels / Frequency range — Normal tape: 50 - 12,000 Hz (EIAJ) / Recording system — AC bias / Erasing system — Magnet erase / Heads — Deck 1: Recording/playback head (1), Erasure head (1); Deck 2: Playback head (1)

CD player section

Disc — Compact disc / Scanning method — Non-contact optical scanner (semiconductor laser) / Rotation speed — Approx. 500 - 200 rpm/CLV / Error correction — Cross interleave, Reed, Solomon code / Number of channels — 2 channels / D/A conversion — 1 bit DAC

General

Power requirements — DC 12 V using eight size D (R20) batteries, AC 110 - 120 V/220 - 240 V switchable, 50/60 Hz / Dimensions (W × H × D) — 260 × 247 × 260 mm / Weight — 3.4 kg (excluding batteries) Power output — 5 W + 5 W (2.7 ohms, EIAJ) / Power consumption — 20 W

Speaker

Type — 120 mm cone type / Dimensions (W × H × D) — 184 × 235 × 240 mm / Weight — Approx. 1.3 kg × 2 Impedance — 2.7 ohms / Allowable max. input — 7 W

- Design and specifications are subject to change without notice.

U MODEL

Tuner section

Frequency range, antenna — FM: 87.5 - 108.0 MHz Rod antenna, AM: 530/531 - 1,710/1,602 kHz (10/9 kHz step) Ferrite bar antenna

Deck section

Track format — 4 tracks, 2 channels / Frequency range — Normal tape: 50 - 12,000 Hz (EIAJ) / Recording system — AC bias / Erasing system — Magnet erase / Heads — Deck 1: Recording/playback head (1), Erasure head (1); Deck 2: Playback head (1)

CD player section

Disc — Compact disc / Scanning method — Non-contact optical scanner (semiconductor laser) / Rotation speed — Approx. 500 - 200 rpm/CLV / Error correction — Cross interleave, Reed, Solomon code / Number of channels — 2 channels / D/A conversion — 1 bit DAC

General

Power requirements — DC 12 V using eight size D (R20) batteries, AC 120 V, 60 Hz / Dimensions (W × H × D) — 260 × 247 × 260 mm (10¹/₄ × 9³/₄ × 10¹/₄ in.) / Weight — 3.4 kg (7 lbs. 8 oz.) (excluding batteries) Power output — 5 W + 5 W (2.7 ohms, EIAJ) / Power consumption — 20 W

Speaker

Type — 120 mm cone type / Dimensions (W × H × D) — 184 × 235 × 240 mm (7¹/₄ × 9³/₈ × 9¹/₂ in.) / Weight — Approx. 1.3 kg (2 lbs. 14 oz.) × 2 Impedance — 2.7 ohms / Allowable max. input — 7 W

- Design and specifications are subject to change without notice.

ACCESSORIES/PACKAGE LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

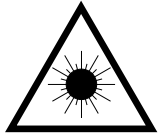
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
	1 8A-CT6-902-010	IB, LH (ESP) FM<LH<S>>	
	1 8A-CT6-903-010	IB, U (ESF) FM<U<S>>	
	2 8Z-CDK-962-010	RC UNIT, RC-ZAT02 (VS)	
	2 8Z-CK4-962-010	RC UNIT, RC-ZAT04 (VS)	
▲	3 87-A80-036-010	AC CORD SET ASSY, E W/FLTR VOL	<LH<S>>
▲	3 87-A80-033-010	AC CORD SET, D BLK	
▲	3 87-A80-109-010	AC CORD, HK7281 BLK U<U<S>>	
▲	4 87-A90-312-010	PLUG, CONVERSION WTN-1157R1<LH<S>>	

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainituilla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylitävälle näkymättömälle lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

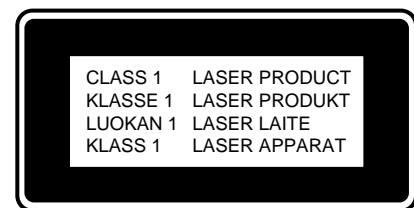
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.

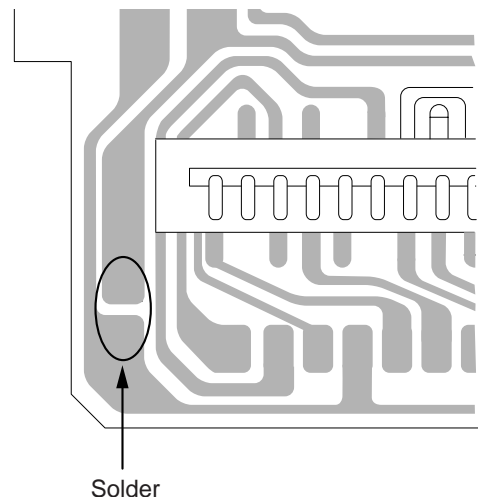


Precaution to replace Optical block (SF-P101NR)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in the right figure.

PICK-UP Assy P.C.B



ELECTRICAL MAIN PARTS LIST

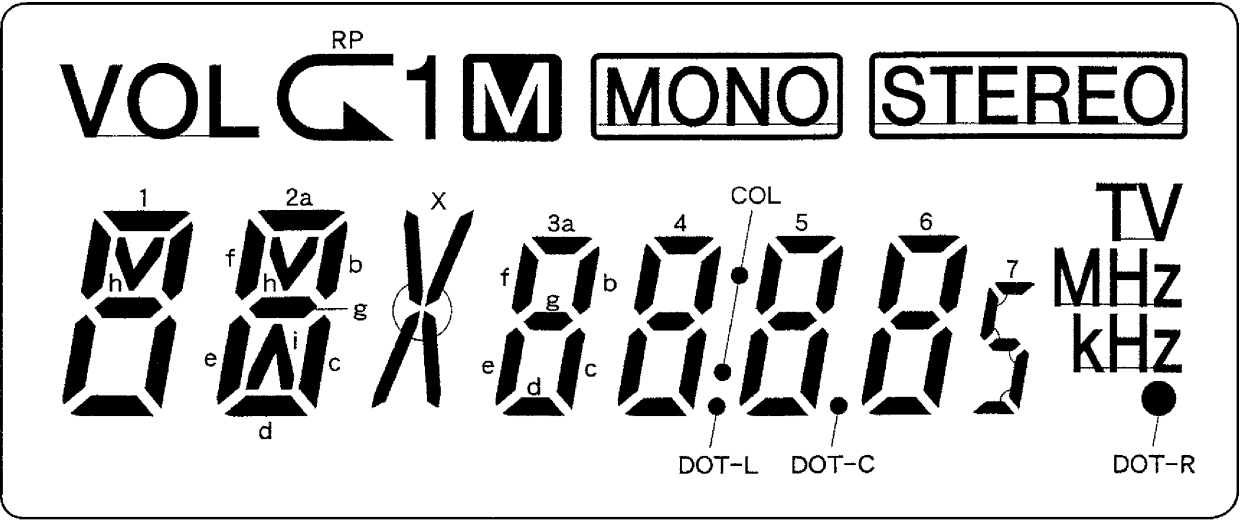
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If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC				C18	87-015-835-080		C-CAP,0.047 D
	87-A21-550-010	IC,TA2149N		C19	87-010-263-080		CAP, ELECT 100-10V
	87-A21-185-040	C-IC,LC72121M		C20	87-010-404-080		CAP, ELECT 4.7-50V
	87-A21-090-010	IC,LA4600		C21	87-010-197-080		CAP, CHIP 0.01 DM
	87-A21-520-040	C-IC,M61509FP		C22	87-010-197-080		CAP, CHIP 0.01 DM
	87-020-828-010	IC,BA3416BL		C23	87-010-197-080		CAP, CHIP 0.01 DM
	87-001-440-010	IC,BA15218N		C25	87-016-460-080		C-CAP,S 0.22-16 B
	87-A20-446-010	C-IC,LA9241ML		C27	87-A11-067-080		C-CAP,S 1-10 K B
	87-A20-459-010	C-IC,LC78622ED		C28	87-016-669-080		C-CAP,S 0.1-25 K B
	87-A21-093-010	IC,LA6541D		C29	87-016-669-080		C-CAP,S 0.1-25 K B
	8A-CH4-661-010	C-IC,LC867132V-5P07		C30	87-010-220-080		C-CAP,S 0.018-25 K B<LH<S>>
	87-A20-914-010	IC,SPS-442-1-F		C30	87-010-593-080		C-CAP,S 0.027-16 K R GRM<U<S>>
				C31	87-010-220-080		C-CAP,S 0.018-25 K B<LH<S>>
				C31	87-010-593-080		C-CAP,S 0.027-16 K R GRM<U<S>>
				C33	87-012-353-080		C-CAP, 0.33-16 K R
TRANSISTOR				C34	87-012-353-080		C-CAP, 0.33-16 K R
	89-327-143-080	TR,2SC2714 (0.1W)		C35	87-015-819-080		CAPACITOR,0.01
	87-026-447-080	TR,2SC1740S R		C36	87-010-263-080		CAP, ELECT 100-10V
	89-111-624-080	TR,2SA1162Y		C37	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-213-080	CHIP-TR,DTC114YK		C38	87-010-374-080		CAP, ELECT 47-10V
	89-327-125-080	CHIP TR,2SC2712GR		C39	87-010-404-080		CAP, ELECT 4.7-50V
	89-320-011-080	TR,2SC2001 (15W)		C40	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-462-080	TR,2SC1740 S(RS 0.3W)		C41	87-012-349-080		C-CAP,S 1000P-50 CH
	87-026-291-080	TR,DTC124XS		C42	87-012-349-080		C-CAP,S 1000P-50 CH
	89-109-332-380	TR,2SA933RS		C43	87-012-349-080		C-CAP,S 1000P-50 CH
	89-113-187-080	TR,2SA1318TU		C44	87-010-312-080		C-CAP,S 15P-50 CH<U<S>>
	87-026-239-080	C-TR,DTC114TK		C45	87-010-312-080		C-CAP,S 15P-50 CH
	87-026-210-080	C-TR,DTC144EK		C46	87-010-197-080		CAP, CHIP 0.01 DM
	89-112-965-080	TR,2SA1296 (0.75W)		C47	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-463-080	TR,2SA933S (0.3W)		C48	87-010-197-080		CAP, CHIP 0.01 DM
	87-A30-226-010	TR,2SB1655E		C49	87-012-140-080		CAP 470P
	89-318-154-080	TR,2SC1815 (0.4W)		C50	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-291-010	TR,DTC124XS		C71	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-463-010	TR,2SA933S,RS		C72	87-010-263-080		CAP, ELECT 100-10V
	87-026-464-010	TR,DTC114TS		C73	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-610-080	TR,KTC3198GR		C75	87-010-197-080		CAP, CHIP 0.01 DM<U<S>>
	89-322-405-080	TR,2SC2240GR		C91	87-010-197-080		CAP, CHIP 0.01 DM
				C92	87-010-197-080		CAP, CHIP 0.01 DM
				C93	87-010-197-080		CAP, CHIP 0.01 DM
DIODE				C99	87-018-131-080		CAP,TC U 1000P-50 K B
	87-020-465-080	DIODE,1SS133 (110MA)		C215	87-A10-201-080		C-CAP,S 0.33-16 K B
	87-A40-616-070	VARI-CAP,SVC384(S/T)		C216	87-012-353-080		C-CAP, 0.33-16 K R
	87-A40-128-080	C-VARI-CAP,HVU202A		C231	87-015-632-080		C-CAP,0.015-50 B
	87-017-072-080	ZENER,HZS3B1		C232	87-015-632-080		C-CAP,0.015-50 B
	87-A40-466-080	ZENER,MTZJ2.7A		C233	87-012-353-080		C-CAP, 0.33-16 K R
	87-070-345-080	DIODE,1N4148		C234	87-012-353-080		C-CAP, 0.33-16 K R
	87-A40-648-080	ZENER,MTZJ8.2A		C235	87-015-785-080		C-CAP, 0.1-25 Z F
	87-001-731-080	ZENER,HZS6C2L		C236	87-015-785-080		C-CAP, 0.1-25 Z F
	87-027-399-080	ZENER,HZ7A3L (200MA)<U<S>>		C237	87-010-408-080		CAP,E 47-50 M 11L SME
	87-027-607-080	ZENER,HZ7B3L<LH<S>>		C238	87-010-248-080		CAP, ELECT 220-10V
	84-RM1-695-010	DIODE,1N4148		C239	87-010-213-080		C-CAP,S 0.015-50 B
	87-A40-465-010	DIODE,FR202		C239	87-010-197-080		CAP, CHIP 0.01 DM
				C240	87-010-197-080		CAP, CHIP 0.01 DM
				C241	87-010-401-080		CAP, ELECT 1-50V
				C242	87-010-401-080		CAP, ELECT 1-50V
MAIN C.B				C243	87-010-401-080		CAP, ELECT 1-50V
C1	87-010-314-080	C-CAP,S 22P-50V		C244	87-010-401-080		CAP, ELECT 1-50V
C2	87-010-316-080	C-CAP,S 33P-50 CH		C245	87-010-401-080		CAP, ELECT 1-50V
C3	87-010-314-080	C-CAP,S 22P-50V		C246	87-010-401-080		CAP, ELECT 1-50V
C5	87-016-669-080	C-CAP,S 0.1-25 K B		C247	87-010-404-080		CAP, ELECT 4.7-50V
C6	87-010-313-080	CAP, CHIP 18P		C248	87-010-404-080		CAP, ELECT 4.7-50V
C7	87-014-049-080	CAP,PP 470P-100 J		C251	87-010-405-080		CAP, ELECT 10-50V
C8	87-012-349-080	C-CAP,S 1000P-50 CH		C261	87-010-401-080		CAP, ELECT 1-50V
C10	87-010-197-080	CAP, CHIP 0.01 DM		C262	87-010-401-080		CAP, ELECT 1-50V
C11	87-010-197-080	CAP, CHIP 0.01 DM		C264	87-010-178-080		CHIP CAP 1000P
C12	87-010-197-080	CAP, CHIP 0.01 DM		C266	87-010-545-080		CAP, ELECT 0.22-50V
C13	87-010-150-080	C-CAP,S 6P-50 CH<U<S>>		C267	87-010-545-080		CAP, ELECT 0.22-50V
C14	87-010-303-080	C-CAP,S 330P-50CH		C271	87-010-237-080		CAP, ELECT 1000-16V
C15	87-012-349-080	C-CAP,S 1000P-50 CH		C272	87-010-237-080		CAP, ELECT 1000-16V
C16	87-010-374-080	CAP, ELECT 47-10V		C277	87-010-404-080		CAP, ELECT 4.7-50V
C17	87-010-194-080	CAP, CHIP 0.047					

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C278	87-010-263-080		CAP, ELECT 100-10V	C429	87-010-186-080		CAP,CHIP 4700P
C279	87-010-112-080		CAP, ELECT 100-16V	C430	87-012-156-080		C-CAP,S 220P-50 CH
C280	87-010-198-080		CAP, CHIP 0.022	C431	87-010-545-080		CAP, ELECT 0.22-50V
C291	87-010-404-080		CAP, ELECT 4.7-50V	C432	87-010-374-080		CAP, ELECT 47-10V
C293	87-010-404-080		CAP, ELECT 4.7-50V	C433	87-010-401-080		CAP, ELECT 1-50V
C301	87-012-157-080		C-CAP,S 330P-50 CH	C434	87-010-184-080		CHIP CAPACITOR 3300P(K)
C302	87-012-157-080		C-CAP,S 330P-50 CH	C435	87-010-197-080		CAP, CHIP 0.01 DM
C303	87-010-177-080		C-CAP,S 820P-50 SL	C436	87-010-374-080		CAP, ELECT 47-10V
C304	87-010-177-080		C-CAP,S 820P-50 SL	C437	87-010-404-080		CAP, ELECT 4.7-50V
C305	87-010-374-080		CAP, ELECT 47-10V	C438	87-012-368-080		C-CAP,S 0.1-50 F
C306	87-010-374-080		CAP, ELECT 47-10V	C439	87-010-178-080		CHIP CAP 1000P
C307	87-010-382-080		CAP, ELECT 22-25V	C440	87-010-145-080		C-CAP,S 1P-50 CH
C308	87-010-405-080		CAP, ELECT 10-50V	C441	87-010-197-080		CAP, CHIP 0.01 DM
C309	87-010-404-080		CAP, ELECT 4.7-50V	C442	87-010-313-080		CAP, CHIP 18P
C310	87-010-404-080		CAP, ELECT 4.7-50V	C445	87-012-368-080		C-CAP,S 0.1-50 F
C311	87-010-248-080		CAP, ELECT 220-10V	C446	87-012-368-080		C-CAP,S 0.1-50 F
C312	87-010-374-080		CAP, ELECT 47-10V	C447	87-012-368-080		C-CAP,S 0.1-50 F
C313	87-015-834-080		C-CAP,0.033-25	C448	87-010-315-080		C-CAP,S 27P-50 CH
C314	87-015-834-080		C-CAP,0.033-25	C450	87-010-305-080		C-CAP 470P-50CH
C315	87-010-401-080		CAP, ELECT 1-50V	C451	87-012-156-080		C-CAP,S 220P-50 CH
C316	87-010-401-080		CAP, ELECT 1-50V	C455	87-010-247-080		CAP, ELECT 100-50V
C317	87-010-382-080		CAP, ELECT 22-25V	C457	87-010-312-080		C-CAP,S 15P-50 CH
C318	87-010-382-080		CAP, ELECT 22-25V	C458	87-010-312-080		C-CAP,S 15P-50 CH
C319	87-010-405-080		CAP, ELECT 10-50V	C459	87-010-263-080		CAP, ELECT 100-10V
C320	87-010-405-080		CAP, ELECT 10-50V	C460	87-015-819-080		CAPACITOR,0.01
C321	87-012-157-080		C-CAP,S 330P-50 CH	C461	87-010-197-080		CAP, CHIP 0.01 DM
C322	87-012-157-080		C-CAP,S 330P-50 CH	C462	87-010-248-080		CAP, ELECT 220-10V
C323	87-010-197-080		CAP, CHIP 0.01 DM	C463	87-018-134-080		CAPACITOR,TC-U 0.01-16
C324	87-010-197-080		CAP, CHIP 0.01 DM	C465	87-010-404-080		CAP, ELECT 4.7-50V
C325	87-010-180-080		C-CER 1500P	C466	87-012-368-080		C-CAP,S 0.1-50 F
C326	87-010-180-080		C-CER 1500P	C467	87-010-263-080		CAP, ELECT 100-10V
C327	87-010-404-080		CAP, ELECT 4.7-50V	C469	87-012-154-080		C-CAP,S 150P-50 CH
C328	87-010-178-080		CHIP CAP 1000P	C470	87-010-544-080		CAP, ELECT 0.1-50V
C329	87-010-182-080		C-CAP,S 2200P-50 B	C472	87-010-858-080		C-CAP,0.1-250 K
C330	87-010-180-080		C-CAP,S 1500P-50 K B	C473	87-010-858-080		C-CAP,0.1-250 K
C331	87-010-263-080		CAP,E 100-10 M 11L	C474	87-010-858-080		C-CAP,0.1-250 K
C332	87-010-178-080		CHIP CAP 1000P	C475	87-015-819-080		CAPACITOR,0.01
C334	87-012-155-080		C-CAP 180P-50CH	C476	87-010-236-080		CAP,E 1000-10 SME
C341	87-012-157-080		C-CAP,S 330P-50 CH	C477	87-010-197-080		CAP, CHIP 0.01 DM
C342	87-012-157-080		C-CAP,S 330P-50 CH	C478	87-010-263-080		CAP, ELECT 100-10V
C343	87-012-157-080		C-CAP,S 330P-50 CH	C479	87-010-197-080		CAP, CHIP 0.01 DM
C344	87-010-303-080		C-CAP,S 330P-50CH	C480	87-010-221-080		CAP, ELECT 470-10V
C363	87-010-182-080		C-CAP,S 2200P-50 B	C481	87-010-405-080		CAP, ELECT 10-50V
C364	87-010-182-080		C-CAP,S 2200P-50 B	C482	87-010-405-080		CAP, ELECT 10-50V
C401	87-010-403-080		CAP, ELECT 3.3-50V	C483	87-012-156-080		C-CAP,S 220P-50 CH
C402	87-010-197-080		CAP, CHIP 0.01 DM	C484	87-012-156-080		C-CAP,S 220P-50 CH
C403	87-010-263-080		CAP, ELECT 100-10V	C489	87-012-368-080		C-CAP,S 0.1-50 F
C404	87-010-248-080		CAP, ELECT 220-10V	C490	87-012-368-080		C-CAP,S 0.1-50 F
C405	87-010-197-080		CAP, CHIP 0.01 DM	C491	87-015-819-080		CAPACITOR,0.01
C406	87-010-374-080		CAP, ELECT 47-10V	C492	87-010-221-080		CAP, ELECT 470-10V
C407	87-010-178-080		CHIP CAP 1000P	C493	87-010-197-080		CAP, CHIP 0.01 DM
C408	87-010-198-080		CAP, CHIP 0.022	C494	87-018-134-080		CAPACITOR,TC-U 0.01-16
C409	87-010-248-080		CAP, ELECT 220-10V	C500	87-010-197-010		CAP, S 0.01-25
C410	87-010-263-080		CAP, ELECT 100-10V	C501	87-016-589-090		CAP,E 3300-25 SSL
C411	87-A11-177-080		C-CAP,S 0.15-16 K B	C506	87-010-404-080		CAP, ELECT 4.7-50V
C412	87-010-401-080		CAP, ELECT 1-50V	C507	87-010-401-080		CAP, ELECT 1-50V
C413	87-016-369-080		C-CAP,S 0.033-25 B K	C508	87-010-221-080		CAP, ELECT 470-10V
C414	87-010-405-080		CAP, ELECT 10-50V	C510	87-010-248-080		CAP, ELECT 220-10V
C416	87-010-545-080		CAP, ELECT 0.22-50V	C511	87-010-374-080		CAP, ELECT 47-10V
C417	87-012-157-080		C-CAP,S 330P-50 CH	C512	87-010-385-080		CAP, ELECT 220-25V
C418	87-010-213-080		C-CAP,S 0.015-50 B	C514	87-010-248-080		CAP, ELECT 220-10V
C419	87-A11-608-080		C-CAP,S 0.33-25 K B	C515	87-010-197-010		CAP, S 0.01-25
C420	87-016-369-080		C-CAP,S 0.033-25 B K	C516	87-010-384-080		CAP, ELECT 100-25V
C421	87-A11-177-080		C-CAP,S 0.15-16 K B	C517	87-010-197-010		CAP, S 0.01-25
C422	87-010-184-080		CHIP CAPACITOR 3300P(K)	C521	87-010-197-080		CAP, CHIP 0.01 DM
C423	87-010-194-080		CAP, CHIP 0.047	C522	87-010-263-080		CAP, ELECT 100-10V
C424	87-016-460-080		C-CAP,S 0.22-16 K B	C544	87-010-405-080		CAP, ELECT 10-50V<LH<S>>
C425	87-010-176-080		C-CAP,S 680P-50 SL	C761	87-010-263-080		CAP, ELECT 100-10V
C426	87-A11-608-080		C-CAP,S 0.33-25 K B	C2001	87-012-349-080		C-CAP,S 1000P-50 CH
C428	87-010-197-080		CAP, CHIP 0.01 DM	C2002	87-012-349-080		C-CAP,S 1000P-50 CH

REF.NO	PART NO.	KANRI NO.	DESCRIPTION
C2003	87-012-349-080	C-CAP,S 1000P-50 CH	
C2004	87-012-349-080	C-CAP,S 1000P-50 CH	
C2005	87-012-349-080	C-CAP,S 1000P-50 CH	
C4001	87-012-368-080	C-CAP,S 0.1-50 F	
C4002	87-010-322-080	C-CAP,S 100P-50 CH	
C4003	87-010-297-080	CAP CHIO 100P	
C4004	87-010-322-080	C-CAP,S 100P-50 CH	
C4005	87-010-297-080	CAP CHIO 100P	
C4006	87-010-322-080	C-CAP,S 100P-50 CH	
C4010	87-012-368-080	C-CAP,S 0.1-50 F	
C4011	87-012-349-080	C-CAP,S 1000P-50 CH	
C4012	87-012-349-080	C-CAP,S 1000P-50 CH	
C4013	87-012-349-080	C-CAP,S 1000P-50 CH	
CF1	87-A91-094-010	FLTR,CDA10.7 MG80A	
CF2	82-785-747-080	CF,MS2 GHY,R	
CF3	82-785-747-080	CF,MS2 GHY,R	
CN201	87-049-469-010	CONN,4P V	
CN301	88-CT6-604-010	CONN ASSY,4P PH	
CN302	88-CT6-605-010	CONN ASSY,5P RPH	
CN401	87-A60-424-010	CONN,16P V TOC-B	
CN501	87-049-919-010	CONN,3P EH V WHT	
CN751	88-CT6-608-010	CONN ASSY,8P MO	
D201	87-020-465-080	DIODE,ISS133 (110MA)	
J251	8A-CT9-630-010	JACK,MIC ST SW	
L2	87-A50-560-010	COIL,FM BPF(ACD)	
L4	87-A50-420-010	COIL,MW OSC(SYN)	
L5	87-A50-566-010	COIL,FM RF EX(ACH)	
L6	87-A50-568-010	COIL,FM OSC EX(ACH)	
L7	87-A91-308-010	FLTR,PCFAZH- 450T (TOK)	
L8	87-005-849-080	COIL,10UH(CECS)	
L9	87-005-849-080	COIL,10UH(CECS)	
L090	87-003-152-080	COIL, 100UH	
L330	88-CT6-620-010	REC OSC	
L401	87-003-102-080	COIL, 10UH	
L404	87-003-152-080	COIL, 100UH	
△R488	87-A00-296-080	C-RES,100K-1/8W F	
△R761	87-029-019-010	RES, FUSEIBLE 1/2W-2.2	
SFR430	87-024-437-080	SFR, 100 K H	
SFR761	87-024-524-080	SFR, 22 K V	
SW301	88-CT6-619-010	BACK SLIDE SW 6P2T SHORTIN	
TC1	87-011-254-080	TRIMER,20P LAR	
X1	87-A70-061-010	VIB,XTAL 4.500MHZ CSA-309	
X401	8Z-CD5-633-010	VIB, CER16.93MHZ FCR16.93M2	
FRONT C.B			
C601	87-010-313-080	CAP, CHIP 18P	
C602	87-010-315-080	C-CAP,S 27P-50 CH	
C603	87-010-317-080	C-CAP,S 39P-50 CH	
C604	87-010-314-080	C-CAP,S 22P-50V	
C605	87-010-316-080	C-CAP,S 33P-50 CH	
C606	87-012-350-080	C-CAP,1-25 F	
C607	87-010-197-080	CAP, CHIP 0.01 DM	
C608	87-016-669-080	C-CAP,S 0.1-25 K B	
C609	87-016-669-080	C-CAP,S 0.1-25 K B	
C610	87-010-263-080	CAP, ELECT 100-10V	
C611	87-016-669-080	C-CAP,S 0.1-25 K B	
C612	87-010-221-080	CAP, ELECT 470-10V	
C613	87-010-402-080	CAP, ELECT 2.2-50V	
C614	87-010-196-080	CHIP CAPACITOR,0.1-25	
C615	87-010-400-080	CAP, ELECT 0.47-50V	
C616	87-010-401-080	CAP, ELECT 1-50V	
C617	87-010-179-080	CAP,CHIP S B1200P	
C618	87-010-263-080	CAP, ELECT 100-10V	
C762	87-010-198-080	CAP, CHIP 0.022	
C765	87-016-669-080	C-CAP,S 0.1-25 K B	
C830	87-010-197-080	CAP, CHIP 0.01 DM	
C831	87-010-197-080	CAP, CHIP 0.01 DM	
C832	87-010-181-080	CAP,CHIP S 1800P	
C833	87-010-178-080	CHIP CAP 1000P	

REF.NO	PART NO.	KANRI NO.	DESCRIPTION
C834	87-010-404-080	CAP, ELECT 4.7-50V	
C835	87-010-544-080	CAP, ELECT 0.1-50V	
C836	87-010-178-080	CHIP CAP 1000P	
C837	87-010-178-080	CHIP CAP 1000P	
C838	87-010-401-080	CAP, ELECT 1-50V	
C839	87-010-401-080	CAP, ELECT 1-50V	
C840	87-010-221-080	CAP, ELECT 470-10V	
C841	87-010-401-080	CAP, ELECT 1-50V	
C842	87-012-140-080	CAP 470P	
C844	87-010-401-080	CAP, ELECT 1-50V	
C4008	87-010-198-080	CAP, CHIP 0.022	
C4009	87-010-198-080	CAP, CHIP 0.022	
C6003	87-010-263-080	CAP, ELECT 100-10V	
C6004	87-010-198-080	CAP, CHIP 0.022	
C6005	87-010-198-080	CAP, CHIP 0.022	
C6006	87-010-198-080	CAP, CHIP 0.022	
C6007	87-010-198-080	CAP, CHIP 0.022	
C6009	87-010-198-080	CAP, CHIP 0.022	
C6010	87-010-198-080	CAP, CHIP 0.022	
C6011	87-010-198-080	CAP, CHIP 0.022	
C6012	87-012-349-080	C-CAP,S 1000P-50 CH	
CN601	87-A60-109-010	CONN,2P V S2M-2W	
J801	8A-CT9-630-010	JACK,MIC ST SW	
L601	87-003-149-080	COIL,47UH	
LCD601	8A-CT9-620-010	LCD,HLC7107ACT-9	
LED605	8Z-CT6-632-010	LED,L-934LID	
LED606	8Z-CT6-632-010	LED,L-934LID	
LED607	8Z-CT6-632-010	LED,L-934LID	
LED608	8Z-CT6-632-010	LED,L-934LID	
LED609	8Z-CT6-632-010	LED,L-934LID	
LED610	8Z-CT6-632-010	LED,L-934LID	
S602	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S603	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S604	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S605	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S606	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S607	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S608	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S609	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S610	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S611	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S612	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S613	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S614	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S615	8Z-CT6-636-010	SW,TACT EVQJAC04M	
S616	8Z-CT6-636-010	SW,TACT EVQJAC04M	
VR801	87-A90-768-010	VR,RTRY 10KAX1 1 H	
X601	87-030-273-010	VIB,XTAL 32.768K5PPM	
X602	87-A70-070-080	VIB,CER 5.76MHZ CRHF	
PWR C.B			
C901	87-A10-577-080	CAP,CER 0.022-50 Z YF	
C902	87-A10-577-080	CAP,CER 0.022-50 Z YF	
C903	87-A10-577-080	CAP,CER 0.022-50 Z YF	
C904	87-A10-577-080	CAP,CER 0.022-50 Z YF	
△F901	87-035-139-010	FUSE, 2.5A T 250V<LH<S>>	
△F901	87-035-367-010	FUSE, 3.15A 250V<U<S>>	
△F901	87-035-486-010	FUSE,2.5A 125V D UL	
△FC901	87-A90-160-080	FUSE CLAMP,FC 51F	
△FC902	87-A90-160-080	FUSE CLAMP,FC 51F	
J901	87-A60-177-010	JACK,AC U W/SW<U<S>>	
LED C.B			
CN603	87-A61-265-080	CONN,4P H,LED-PWB	
LED602	8Z-CT6-632-010	LED,L-934LID	
LED603	8Z-CT6-632-010	LED,L-934LID	
LED604	8Z-CT6-632-010	LED,L-934LID	

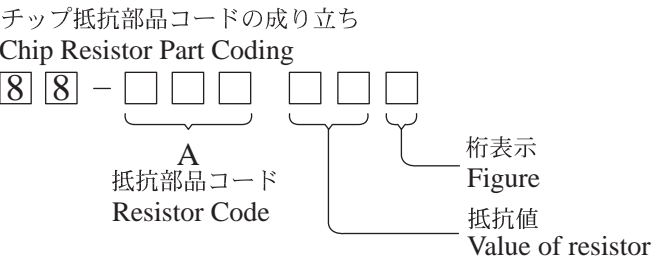


REF. NO	PART NO.	KANRI NO.	DESCRIPTION
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MOTOR C.B			
M2	9X-262-576-910	MOTOR GEAR ASSY	
PIN3	91-564-722-110	CONNECTOR 6P	
SW1	91-572-085-120	LEAF SW	

- Regarding connectors, they are not stocked as they are not the initial order items.
The connectors are available after they are supplied from connector manufacturers upon the order is received.

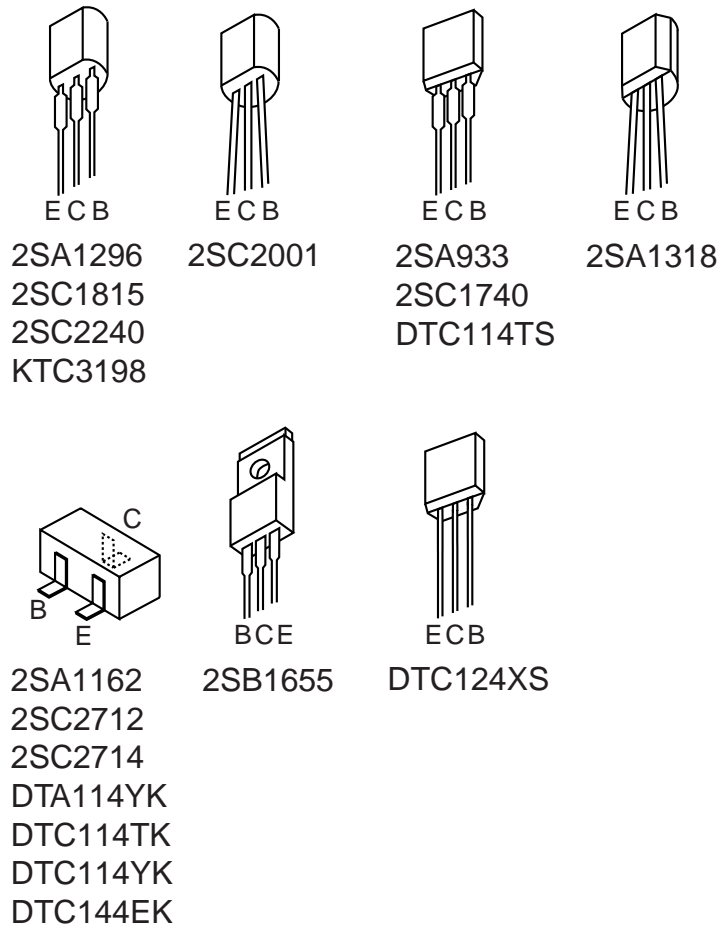
○チップ抵抗部品コード／CHIP RESISTOR PART CODE



チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード Resistor Code : A
				外形／Form	L	W	t	
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

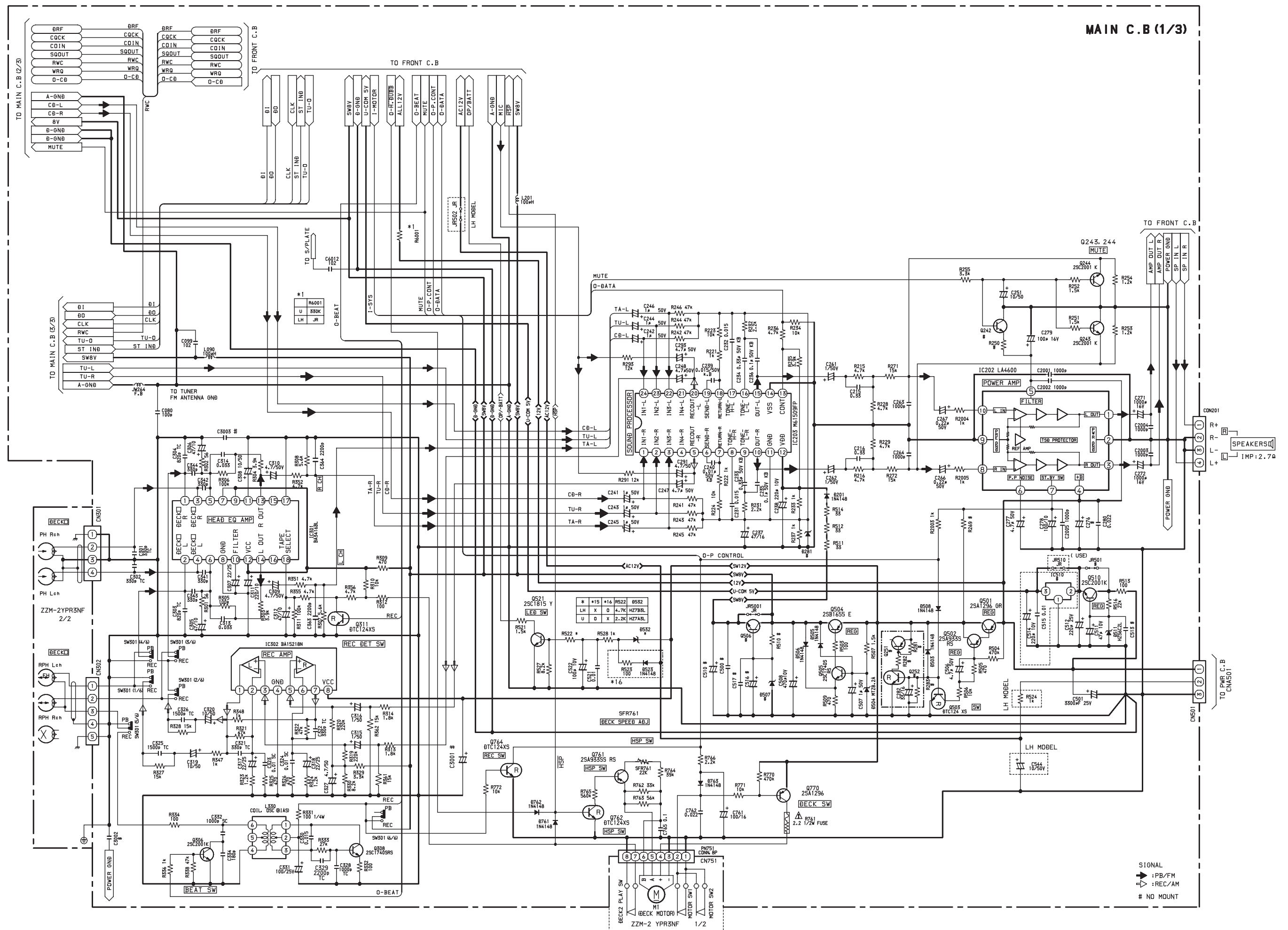
TRANSISTOR ILLUSTRATION

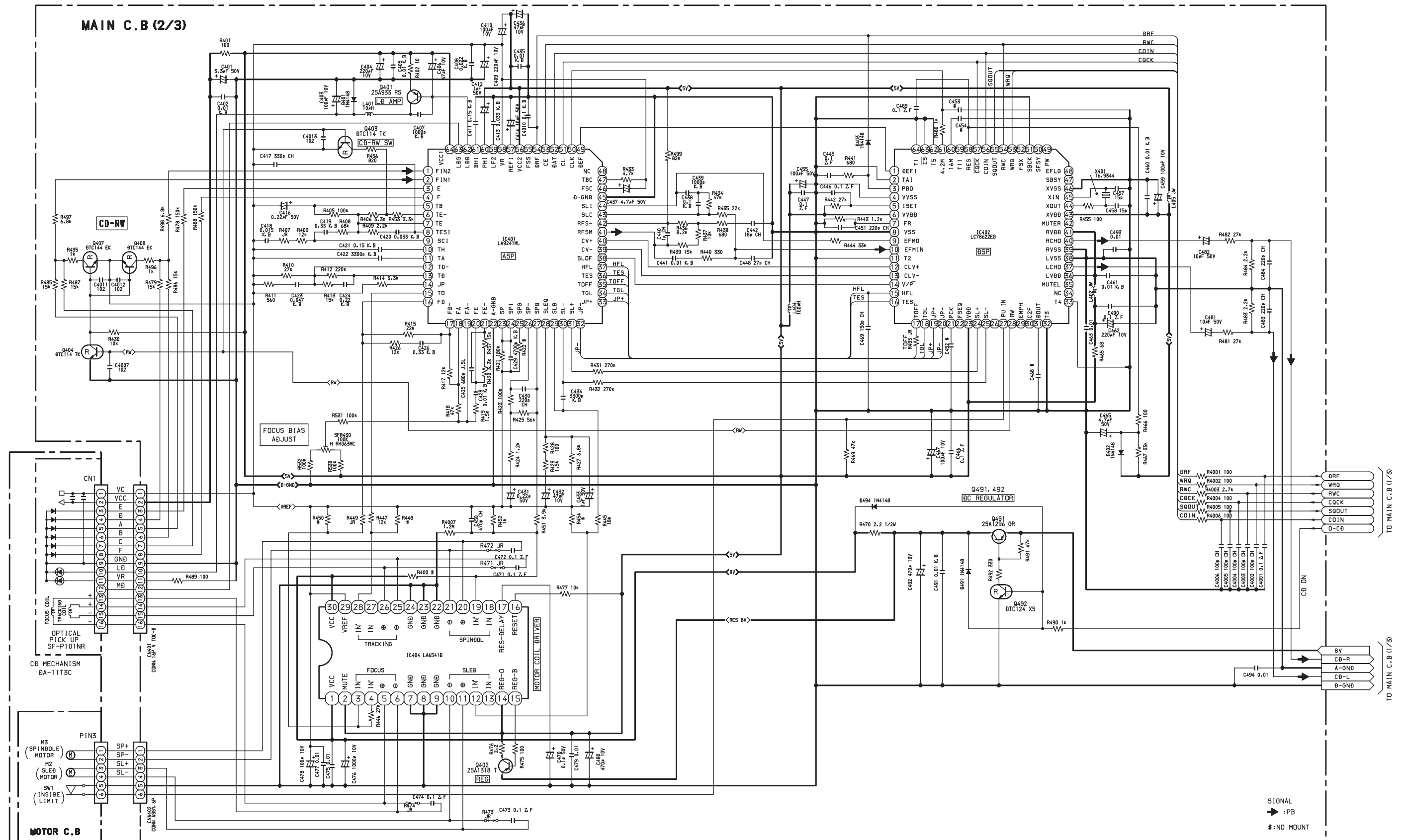


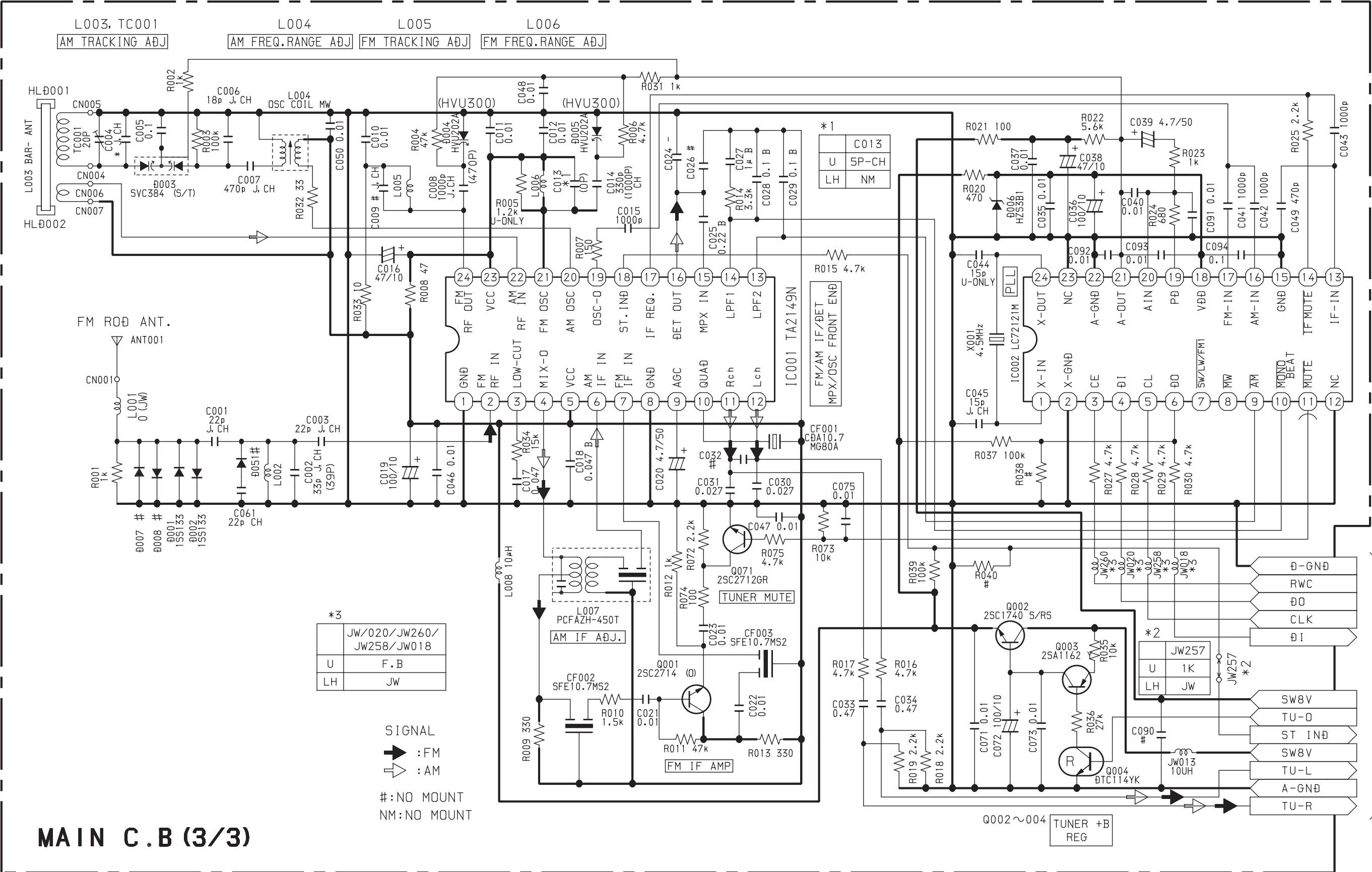
No	COM1	COM2	COM3
1	2b	2c	2d
2	1b	1c	1d
3	1a	1f	1e
4	1h	1g	VOL
5	2a	2f	2e
6	2h	2g	2 i
7	3f	3e	RP
8	3a	3g	3d
9	3b	3c	1
10	4f	4e	M
11	4a	4g	4d
12	4b	4c	X
13	COL	DOT-L	MONO
14	5f	5e	DOT-R
15	5a	5g	5d
16	5b	5c	DOT-C
17	6f	6e	STEREO
18	6a	6g	6d
19	6b	6c	7
20	TV	MHz	kHz
21	COM1	---	---
22	---	COM2	---
23	---	---	COM3

1	2	3	4	5	6	7	8	9	10	11	12	13	14
---	---	---	---	---	---	---	---	---	----	----	----	----	----

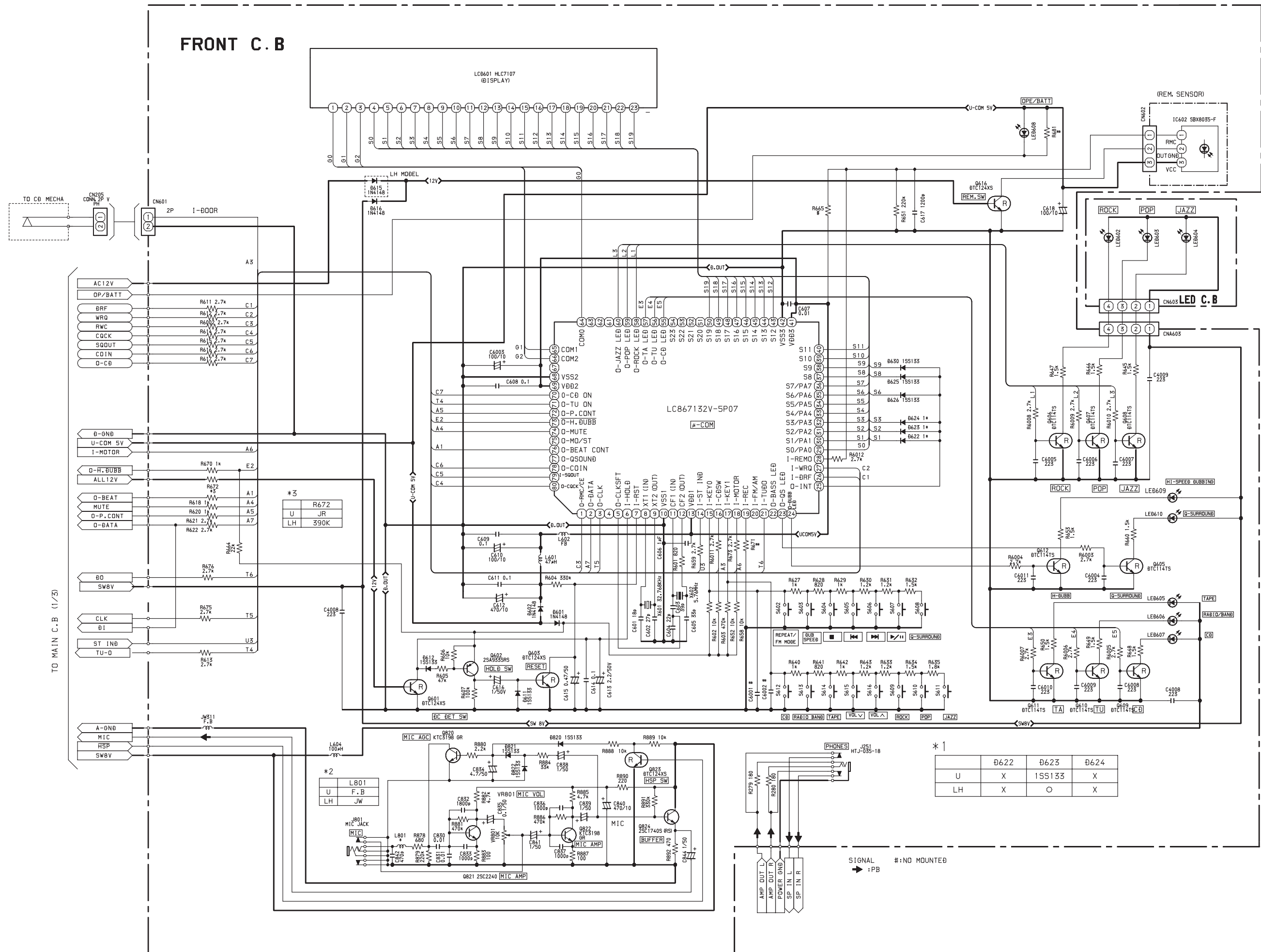
SCHEMATIC DIAGRAM-1 (MAIN)



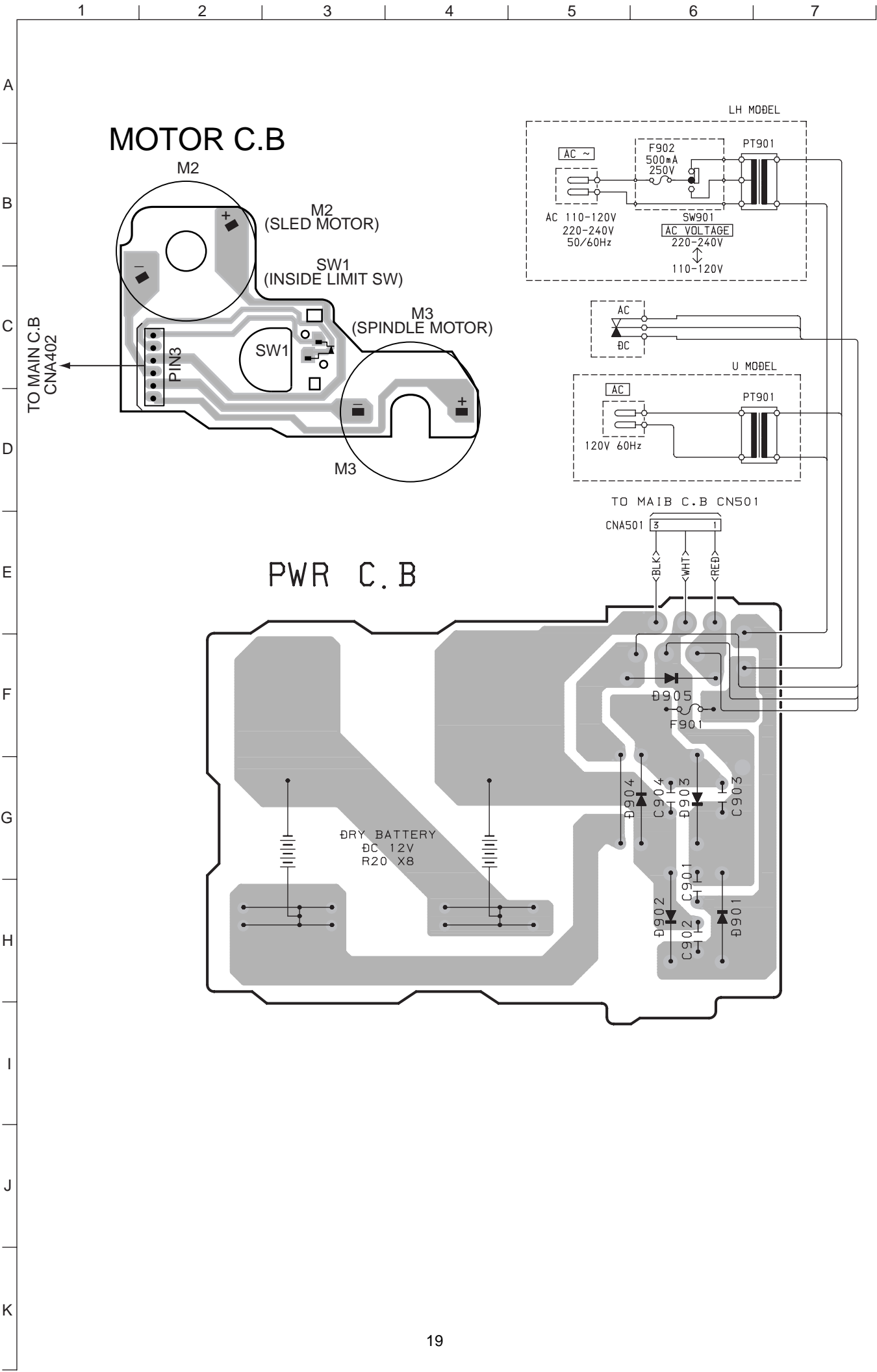




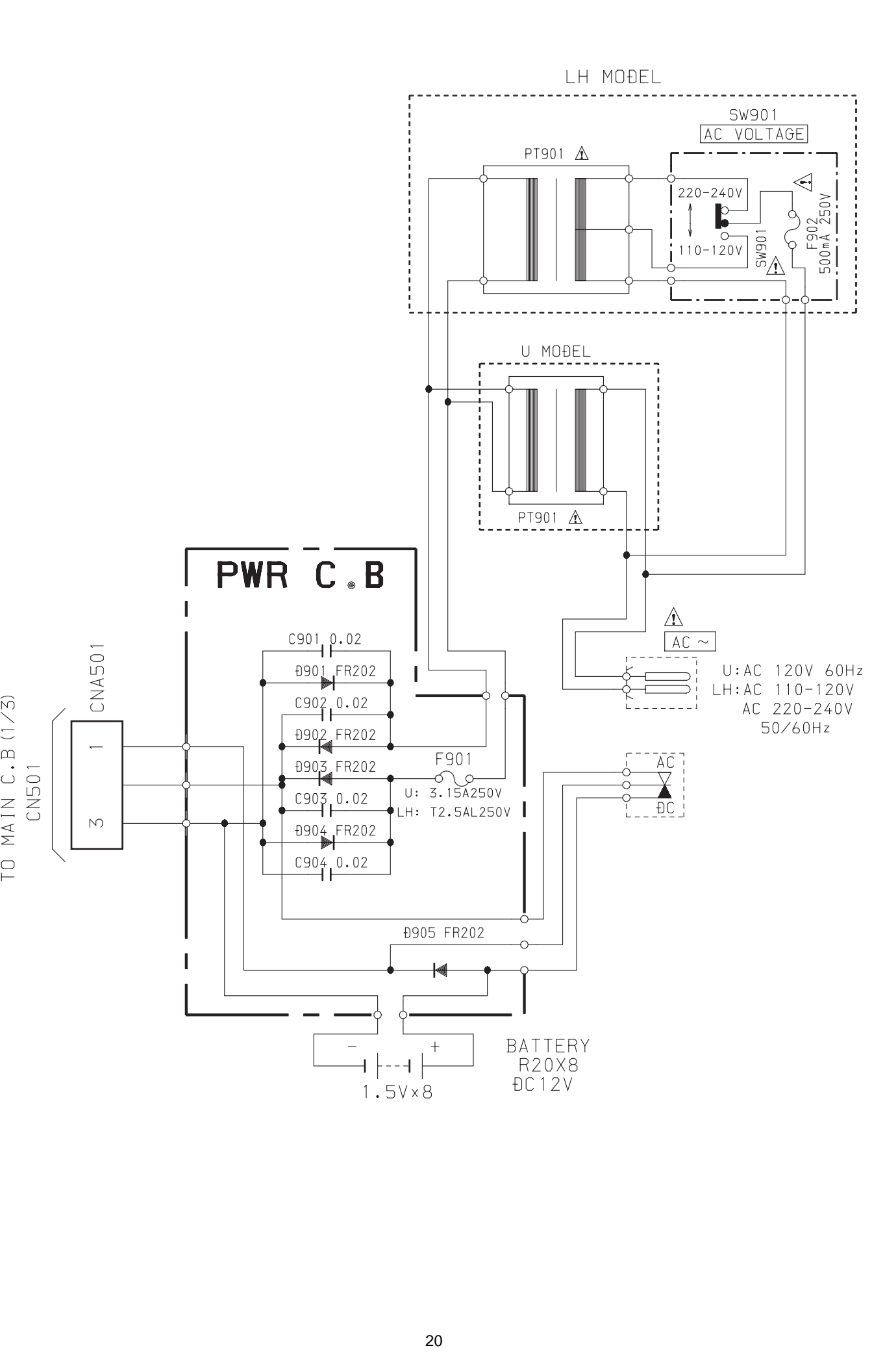
MAIN C.B (3/3)



WIRING-2 (PWR/MOTOR)



SCHEMATIC DIAGRAM-5 (POWER)





1. AM IF Adjustment
L007 450kHz
2. AM VT Adjustment
Settings: • Test point: C39⊕
 • Adjustment location: L004
Method: Set to AM 1710kHz adjust L004 so that the test
 point becomes $5.6V \pm 0.2V$
3. AM Tracking Adjustment
L003 600kHz
TC001 1400kHz
4. FM VT Adjustment
Settings: • Test point: C39⊕
 • Adjustment location: L006
Method: Set to FM 108MHz adjust L006 so that the test
 point becomes $5.6V \pm 0.2V$
5. FM Tracking Adjustment
L005 98MHz

6. Bias frequency Adjustment
L330 52kHz \pm 1kHz
7. Tape speed Adjustment
Settings:
 - Test tape: MT111
 - Test point: PHONES JACK (J251)
 - Adjustment location: SFR761Method: Play back the test tape and adjust so that the output frequency is 3000Hz \pm 30Hz.
8. Azimuth Adjustment
Settings:
 - Test tape: TTA-320
 - Test point: PHONES JACK (J251)
 - Adjustment location: Azimuth adjustment screwMethod: Play back the 8kHz signal of the test tape and adjust screw so that the output becomes maximum.

9. Focus Bias Adjustment

Settings:

- Test CD: TCD-782 (A-BEX)
- Test point: IC401 PIN20, PIN58
- Adjustment location: SFR430

Method: Play back the #15 of the test CD and adjust SFR430 so that the voltage between pin20 and pin 58 of IC401 becomes $0V \pm 0.1mV$.

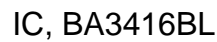
< TUNER SECTION >

Sensitivity:	Less than 22dB (87.5MHz)
(THD 3%)	Less than 22dB (98.0MHz)
	Less than 22dB (108.0MHz)
Signal to Noise Ratio:	More than 55dB (at 98.0MHz)
(Input 54dB)	
Distortion:	Less than 3.0% (at 98.0MHz)
(Input 54dB)	
Intermediate frequency:	10.7MHz \pm 0.3MHz
Stereo separation:	More than 18dB (at 1kHz)

Sensitivity:	Less than 52dB (at 600kHz)
(S/N 10dB)	Less than 50dB (at 1000kHz)
	Less than 50dB (at 1400kHz)
Distortion:	Less than 3%
(Input 74dB)	
Intermediate frequency:	450kHz±5kHz

Tape speed:	3000Hz±60Hz
Wow & flutter:	Less than 0.35% (JIS RMS)
Take-up torque:	30-60g·cm (DECK 1/2)
FF torque:	55-140g·cm (DECK 1/2)
Rew torque:	55-140g·cm (DECK 1/2)
Back tension:	1-5g·cm
S/N ratio:	More than 50dB (DC)
Distortion:	Less than 3.0% (PB)
Noise (PB):	Less than 0.9mV (DC)
	Less than 15mV (AC VOL max)

IC, LA6541D



VOLTAGE CHART

1.MICOM BLOCK

IC601(LC867132V_*** UNIT : (V) VOLT																																											
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
CD	0	0	0	0	0	0	3.5	1.4	2.5	0	2.0	2.5	4.5	0.5	5.0	0	5.0	5.0	0	0	0.5	0	0	0	4.5	5.0	1.0	5.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
TUNER	0	0	0	0	0	0	4.5	1.4	2.5	0	4.0	5.0	5.0	4.5	5.0	0	5.0	5.0	0	0	4.5	0	0	0	0	0	0	4.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5.0
TAPE	0	0	0	0	0	0	4.5	1.4	2.5	0	2.0	2.5	4.5	0.5	5.0	0	5.0	1.5	0	0	4.5	0	0	0	4.5	0	0	4.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5.0
PIN NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80			
CD	0	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	4.5	0	0	0	0	0	0	0	0	2.5	2.5	2.5	0	0	4.5	4.5	0	4.5	4.5	0	0	0	0	4.5	0	4.5	0	4.5	
TUNER	5.0	0	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	2.5	0	0	0	0	0	0	0	0	2.5	2.5	2.5	0	0	4.5	0	5.0	4.5	5.0	0	0	0	0	0	0	0	0	0	
TAPE	5.0	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	0	0	4.5	0	0	0	0	0	0	2.5	2.5	2.5	0	0	5.0	0	0	4.5	4.5	0	0	0	0	0	0	0	0	0	

CONDITIONS:TUNER-----UNIT ; (V) VOLT

IC602		LOC NO.	Q601	Q602	Q603	Q605	Q606	Q607	Q608	Q609	Q610	Q611	Q616
1(B+)	5.5	E	0	5.0	0	0	0	0	0	0	0	0	0
	0	C	0	5.0	4.5	6.5	0	0	0	6.5	0	6.5	0
3	4.5	B	1.0	4.5	0	0	0	0	0	0	4.0	0	11.0

CONDITIONS : MIC REC-----UNIT ; (V) VOLT

LOC NO	Q820	Q821	Q822	Q823	Q824
E	0	0	0	0	2.0
C	0	2.0	2.5	0	8.0
B	0	0	0.5	4.0	2.5

2.CD BLOCK-----UNIT ; (V) VOLT

IC401(LA9241ML)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
STOP	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0
PLAY	2.5	1.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0
RW	2.5	1.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0
PIN NO	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
STOP	0	5.0	0	1.0	0	0	0	0	1.5	2.5	2.5	2.5	0	2.5	2.5	0	0	2.5	4.5	4.5	0	5.0	0	5.0	2.5	2.5	1.0	3.0	2.0	4.5	0	5.0
PLAY	0	5.0	0	1.0	0	0	0	0	2.0	2.5	2.5	2.5	0	2.5	2.5	0	0	2.5	2.5	4.5	0	5.0	0	5.0	2.5	2.5	1.0	3.0	2.0	1.0	0	5.0
RW	0	5.0	0	1.0	0	0	0	0	2.0	2.5	2.5	2.5	0	2.5	2.5	0	0	2.5	2.5	4.5	0	5.0	0	5.0	2.5	2.5	1.0	3.0	2.0	1.0	0	5.0

IC402(LC78622ED)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
STOP	0	0	0.5	0	1.5	4.0	0	0	0	0	0	0	0	0	0	1.0	0.5	5.0	0	0	2.5	0	5.0	0	0	0	0	4.5	0	0	0	0
PLAY	0	0	1.5	0	1.5	4.0	0	0	2.5	2.5	0	0	0	0	0	1.0	0	5.0	0	0	2.5	0	0	0	0	0	4.0	0	0	0	2.5	0
RW	0	0	1.5	0	1.5	4.0	0	0	2.5	2.5	0	0	0	0	0	1.0	0	5.0	0	0	2.5	0	0	0	0	0	4.0	5.0	0	0	2.5	0
PIN NO	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
STOP	0	0	0	5.0	2.0	0	0	2.0	5.0	0	5.0	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	0	0	0
PLAY	0	0	0	5.0	2.0	0	0	2.0	5.0	0	5.0	2.0	0	0	0	0	0	0	0	0	1.0	0	0	0	4.5	4.5	0	0	2.5	0	0	0
RW	0	0	0	5.0	2.0	0	0	2.0	5.0	0	5.0	2.0	0	0	0	0	0	0	0	0	1.0	0	0	0	4.5	4.5	0	0	2.5	0	0	0

IC404(LA6541D)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
STOP	7.5	0	2.5	2.5	3.5	3.5	0	0	0	3.5	3.5	2.5	0	5.0	7.0	5.0	5.0	0	4.5	3.5	3.5	0	0	0	0	3.5	0	2.5	0	7.5
PLAY	7.5	0	2.5	2.5	3.0	3.5	0	0	0	3.0	3.5	2.5	0	5.0	7.0	5.0	5.0	0	2.5	3.5	3.0	0	0	0	3.0	3.5	0	2.5	2.5	7.5

2-1.CD BLOCK -----UNIT ; (V) VOLT

LOC NO	Q401			Q402			Q403			Q404			Q407			Q408			Q491			Q492		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.0	1.5	4.5	7.5	5.0	7.0	2.5	2.5	0	0	3.5	0	2.5	2.5	3.5	2.5	2.5	3.5	7.5	7.5	0	0	4.0	
PLAY	4.5	2.0	3.5	7.5	5.0	7.0	2.5	0	0	0	3.5	0	2.5	2.5	3.5	2.5	2.5	3.5	7.5	7.5	0	0	4.0	
RW	4.5	2.0	3.5	7.5	5.0	7.0	2.5	2.5	5.0	0	4.5	5.0	2.5	2.5	4.5	2.5	2.5	4.5	7.5	7.5	0	0	4.0	

3.TUNER BLOCK-----UNIT ; (v) VOLT

IC001(TA2149N))																								
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
AM	0	0	1.0	4.5	4.5	4.0	4.5	0	0	4.5	1.0	1.0	0	0	0.5	1.0	1.0	4.5	3.0	4.5	4.5	4.5	4.5	4.5
FM	0	0.5	0	4.5	4.5	4.0	4.5	0	0.5	3.5	3.5	1.0	1.0	3.5	4.0	0.5	1.0	1.0	4.5	2.5	4.5	4.5	4.5	4.5

IC002 (LC72121M)																								
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
AM	1.5	0	0	0.5	0	4.5	0.5	0	2.0	0	0	0	0	1.0	0	1.5	0	2.5	1.0	1.0	1.0	0	0	1.5
FM	1.5	0	0	0.5	0	4.5	0.5	0	1.5	3.5	3.5	0	0	1.0	0	0	1.5	2.5	1.0	1.0	2.5	0	0	1.5

TRANSISTOR															
LOC NO	Q001			Q002			Q003			Q004			Q071		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
AM	2.0	4.0	2.5	4.5	7.5	5.5	5.5	5.5	4.5	0	0	4.5	0	0	0.5
FM	2.0	4.0	2.5	4.5	7.5	5.0	5.0	5.0	4.5	0	0	4.5	0	0	0.5

4.TAPE BLOCK -----UNIT ; (V) VOLT

IC301(BA3416BL)																		
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PLAY - I	0	0	0	0	0.5	0.5	5.5	0	5.5	5.0	2.0	5.5	2.5	2.5	0	0	0	1.0
REC	0	0	0	0	0.5	0.5	5.5	0	5.5	5.0	0.5	5.5	2.5	2.5	0	0	0	0

IC302(BA15218N)									
PIN NO	1	2	3	4	5	6	7	8	
PLAY	5.5	5.5	4.5	0	5.5	5.5	5.5	10.0	
REC	5.5	5.5	5.5	0	5.5	5.5	5.5	10.0	

TRANSISTOR																							
LOC NO	Q306			Q308			Q311			Q761			Q762			Q764			Q770				
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B		
PLAY	0	0	0	0	0	0	0	0	2.0	0	0	9.0	8.5	0	0	4.0	0	1.0	0	11.0	11.0	10.0	
REC	0	0	0	0	0	0	0	0	0	0	8.5	8.0	0	0	4.0	0	1.0	0	11.0	11.0	10.0		

5.POWER AMP,SUPPLY-----UNIT ; (V) VOLT

IC203(M61509FP)																								
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
VOLT	1.5	1.5	2.0	0	2.0	2.5	2.5	2.5	2.5	2.5	0	4.5	3.0	0	0	0	0	0	0	0	0	0	0	0

IC202(LA4600)										
PIN NO	1	2	3	4	5	6	7	8	9	10
VOLT	5.5	0	5.5	12.0	0	8.0	0	1.5	0	1.5

TRANSISTOR									
LOC NO	Q243	Q244	Q501	Q502	Q503	Q504	Q505	Q510	Q521
E	0	0	12.0	10.5	0	11.0	7.0	5.5	0
C	0	0	11.0	11.0	0	8.0	10.0	10.5	0
B	0	0	11.0	11.0	1.5	10.5	7.5	6.0	0.5

IC DESCRIPTION

IC, LA9241ML

Pin No.	Pin Name	I/O	Description
1	FIN2	I	Pin to which external pickup photo diode is connected. RF signal is created by adding with the FIN1 pin signal. FE signal is created by subtracting from the FIN1 pin signal.
2	FIN1	I	Pin to which external pickup photo diode is connected.
3	E	I	Pin to which external pickup photo diode is connected. TE signal is created by subtracting from the F pin signal.
4	F	I	Pin to which external pickup photo diode is connected.
5	TB	I	DC component of the TE signal is input.
6	TE-	I	Pin to which external resistor setting the TE signal gain is connected between the TE pin.
7	TE	O	TE signal output pin.
8	TESI	I	TES “Track Error Sense” comparator input pin. TE signal is passed through a band-pass filter then input.
9	SCI	I	Shock detection signal input pin.
10	TH	I	Tracking gain time constant setting pin.
11	TA	O	TA amplifier output pin.
12	TD-	I	Pin to which external tracking phase compensation constants are connected between the TD and VR pins.
13	TD	I	Tracking phase compensation setting pin.
14	JP	I	Tracking jump signal (kick pulse) amplitude setting pin.
15	TO	O	Tracking control signal output pin.
16	FD	O	Focusing control signal output pin.
17	FD-	I	Pin to which external focusing phase compensation constants are connected between the FD and FA pins.
18	FA	I	Pin to which external focusing phase compensation constants are connected between the FD- and FA- pins.
19	FA-	I	Pin to which external focusing phase compensation constants are connected between the FA and FE pins.
20	FE	O	FE signal output pin.
21	FE-	I	Pin to which external FE signal gain setting resistor is connected between the FE pin.
22	AGND	—	Analog signal GND.
23	SP	O	Signal ended output of the CV+and CV- pin input signal.
24	SPI	I	Spindle amp input.
25	SPG	I	Pin to which external spindle gain setting resistor in 12 cm mode is connected.
26	SP-	I	Pin to which external spindle phase compensation constants are connected together with SPD pin.
27	SPD	O	Spindle control signal output pin.
28	SLEQ	I	Pin to which external sled phase compensation constants are connected.
29	SLD	O	Sled control signal output pin.
30, 31	SL-, SL+	I	Sled advance signal input pin from microprocessor.
32, 33	JP-, JP+	I	Tracking jump signal input pin from DSP.
34	TGL	I	Tracking gain control signal input from DSP. Low gain when TGL = H.
35	TOFF	I	Tracking off control signal input pin from DSP. Off when TOFF = H.

Pin No.	Pin Name	I/O	Description
36	TES	O	Pin from which TES signal is output to DSP.
37	HFL	O	“High Frequency Level” is used to judge whether the main beam position is on top of bit or on top of mirror.
38	SLOF	I	Sled servo off control input pin.
39, 40	CV–, CV+	I	CLV error signal input pin from DSP.
41	RFSM	O	RF output pin.
42	RFS-	I	RF gain setting and EFM signal 3T compensation constant setting pin together with RFSM pin.
43	SLC	O	“Slice Level Control” is the output pin which controls the RF signal data slice level by DSP.
44	SLI	I	Input pin which control the data slice level by the DSP.
45	DGND	—	Digital system GND.
46	FSC	O	Output pin to which external focus search smoothing capacitor is connected.
47	TBC	I	“Tracking Balance Control” EF balance variable range setting pin.
48	NC	—	No connection.
49	DEF	O	Disc defect detector output pin.
50	CLK	I	Reference clock input pin. 4.23 MHz of the DSP is input.
51	CL	I	Microprocessor command clock input pin.
52	DAT	I	Microprocessor command data input pin.
53	CE	I	Microprocessor command chip enable input pin.
54	DRF	O	“Detect RF” RF level detector output.
55	FSS	I	“Focus Search Select” focus search mode (\pm search/+ search) select pin.
56	VCC2	—	Servo system and digital system Vcc pin.
57	REFI	—	Pin to which external bypass capacitor for reference voltage is connected.
58	VR	O	Reference voltage output pin.
59	LF2	I	Disc defect detector time constant setting pin.
60	PH1	I	Pin to which external capacitor for RF signal peak holding is connected.
61	BH1	I	Pin to which external capacitor for RF signal bottom holding is connected.
62	LDD	O	APC circuit output pin.
63	LDS	I	APC circuit input pin.
64	VCC1	—	RF system Vcc pin.

IC, LC78622ED

Pin No.	Pin Name	I/O	Description	
1	DEFI	I	Defect sense signal (DEF) input pin. (Connect to 0V when not used).	
2	TAI	I	For PLL.	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
3	PDO	O		Phase comparator output pin to control external VCO.
4	VVSS	—		GND pin for built-in VCO. Be sure to connect to 0V.
5	ISSET	I		Pin to which external resistor adjusting the PDO output current.
6	VVDD	—		Power supply pin for built-in VCO.
7	FR	I		Pin for VCO frequency range adjustment.
8	VSS	—	Digital system GND. Be sure to connect to 0V.	
9	EFMO	O	For slice level control.	EFM signal output pin.
10	EFMIN	I		EFM signal input pin.
11	T2	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
12, 13	CLV+, CLK-	O	Disc motor control output. Three level output is possible using command.	
14	$\overline{V/P}$	O	Rough servo or phase control automatic selection monitoring output pin. Rough servo at H. Phase servo at L.	
15	HFL	I	Track detect signal input pin. Schmidt input.	
16	TES	I	Tracking error signal input pin. Schmidt input.	
17	TOFF	O	Tracking OFF output pin.	
18	TGL	O	Tracking gain selection output pin. Gain boost at L.	
19, 20	JP+, JP-	O	Track jump control signal output pin. Three level output is possible using command.	
21	PCK	O	EFM data playback clock monitoring pin 4.3218 MHz when phase is locked in.	
22	FSEQ	O	Sync signal detection output pin. H when the sync signal which is detected from EFM signal and the sync signal which is internally generated agree.	
23	VDD	—	Digital system power supply pin.	
24	SL+	O	Moves the sled to outer circumference.	
25	SL-	O	Moves the sled to inner circumference.	
26	—	—	Not connected.	
27	PUIN	I	CD pickup inner switch detection.	
28	\overline{RW}	O	Read, write signal.	
29	EMPH	O	De-emphasis monitor output pin. De-emphasis disc is being played back at H.	
30	C2F	O	C2 flag output pin.	
31	DOUT	O	DIGITAL OUT output pin. (EIAJ format).	
32, 33	T3, T4	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
34	N.C.	—	Not used. Set the pin to open.	
35	MUTEL	O	L-channel 1-bit DAC.	L-channel mute output pin.
36	LVDD	—		L-channel power supply pin.
37	LCHO	O		L-channel output pin.
38	LVSS	—		L-channel GND. Be sure to connect to 0V.
39	RVSS	—	R-channel 1-bit DAC.	R-channel GND. Be sure to connect to 0V.
40	RCHO	O		R-channel output pin.
41	RVDD	—		R-channel power supply pin.
42	MUTER	O		R-channel mute output pin.

Pin No.	Pin Name	I/O	Description
43	XVDD	—	Crystal oscillator power supply pin.
44	XOUT	O	Pin to which external 16.9344 MHz crystal oscillator is connected.
45	XIN	I	
46	XVSS	—	Crystal oscillator GND pin. Be sure to connect to 0V.
47	SBSY	O	Subcode block sync signal output pin.
48	EFLG	O	C1, C2, single and dual correction monitoring pin.
49	PW	O	Subcode P, Q, R, S, T, U and W output pin.
50	SFSY	O	Subcode frame sync signal output pin. Falls down when subcode enters standby.
51	SBCK	I	Subcode read clock input pin. Schmidt input. (Be sure to connected to 0V when not in use.)
52	FSX	O	Pin outputting the 7.35 kHz sync signal which is generated by dividing frequency of crystal oscillator.
53	WRQ	O	Subcode Q output standby output pin.
54	RWC	I	Read/write control input pin. Schmidt input.
55	SQOUT	O	Subcode Q output pin.
56	COIN	I	Command input pin from microprocessor.
57	$\overline{\text{CQCK}}$	I	Command input read clock or subcode read input clock from SQOUT pin
58	RES	I	LC78622 reset input pin. Set this pin to L once when the main power is turned on.
59	T11	O	Test signal output pin. Use this pin as open (normally L output).
60	16M	O	16.9344 MHz output pin.
61	4.2M	O	4.2336 MHz output pin.
62	T5	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
63	$\overline{\text{CS}}$	I	Chip select signal input pin with built-in pull-down resistor. Be sure to connect to 0V while it is not controlling.
64	T1	I	Test signal input pin without built-in pull-down resistor. Be sure to connect to 0V.

IC, LC867132V-5P07

Pin No.	Pin Name	I/O	Description
1	O-RMC/CE	O	CD read/write control output and TU CE.
2	O-DATA	O	Data output to M62495FP.
3	O-CLK	O	Output CLK to tuner PLL.
4	—	—	Not Connected.
5	O-CLKSFT	O	Clock shift output of the microcomputer.
6	I-HOLD	I	Hold status detection.
7	I-RST	I	Microcomputer reset.
8	XT1 (IN)	I	Connected to 32.768KHZ crystal oscillator.
9	XT2 (OUT)	O	
10	VSS1	—	GND.
11	CF1 (IN)	I	Connected to 6MHZ Ceramic Filter.
12	CF2 (OUT)	O	
13	VDD1	—	Power supply for microcomputer (+5V).
14	I-ST IND	I	FM STEREO status input.
15	I-KEYO	I	KEY AD input.
16	I-CD SW	I	CD DOOR SW status detection input.
17	I-KEY1	I	KEY AD input.
18	I-MOTOR	I	DECK MECHA MOTOR status input.
19	I-REC	I	REC status input.
20	I-FM/AM	I	FM, AM status input. (Not connected)
21	I-TU DO	I	Data input from tuner PLL.
22	O-BASS LED	O	BASS LED ON/OFF control output. (Not connected)
23	O-QS LED	O	Q-Sound LED ON/OFF control output.
24	O-DUBB LED	O	LED control output used for high-speed dubbing.
25	O-INT	O	INT DIODE MATRIX detection output.
26	I-DRF	I	CD RF level detection input.
27	I-WRQ	I	CD sub-code Q standby input.
28	I-REMO	I	Remote control input.
29	S0-PA0	O	LCD segment output.
30	S1/PA1	O	LCD segment output.
31	S2/PA2	O	LCD segment output.
32	S3/PA3	O	LCD segment output.
33	S4/PA4	O	LCD segment output.
34	S5/PA5	O	LCD segment output.
35	S6/PA6	O	LCD segment output.
36	S7/PA7	O	LCD segment output.
37-40	S8~S11	O	
41	VDD3	—	Power supply for microcomputer (+5V).
42	VSS3	—	GND.
43-54	S12~S23	O	LCD segment output.
55	O-CD LED	O	LED ON/OFF control output for CD functions.

Pin No.	Pin Name	I/O	Description
56	O-TU LED	O	LED ON/OFF control output for TU functions.
57	O-TA LED	O	LED ON/OFF control output for TAPE functions. (Not Connected)
58	O-ROCK LED	O	LED ON/OFF control output for ROCK.
59	O-POP LED	O	LED ON/OFF control output for POP.
60	O-JAZZ LED	O	LED ON/OFF control output for JAZZ.
61-63	—	—	Not connected.
64-66	COM0-COM2	O	LCD common output.
67	—	—	Not connected.
68	VSS2	—	GND.
69	VDD2	—	Power supply for microcomputer (+5V).
70	O-CD ON	O	CD PWR control output.
71	O-TU ON	O	TU PWR control output.
72	O-P.CONT	O	Power supply control output.
73	$\overline{\text{O-H DUBB}}$	O	Dubbing speed control output.
74	O-MUTE	O	Main mute output.
75	O-MO/ST	O	FM mono/stereo output. (Not connected)
76	O-BEAT CONT	O	BEAT switch over output.
77	O-QSOUND	O	Q-Sound ON/OFF output. (Not connected)
78	O-COIN	O	CD command output.
79	I-SQOUT	I	CD sub-code Q input.
80	O-CQCK	O	CLK for CD commands/sub-codes.

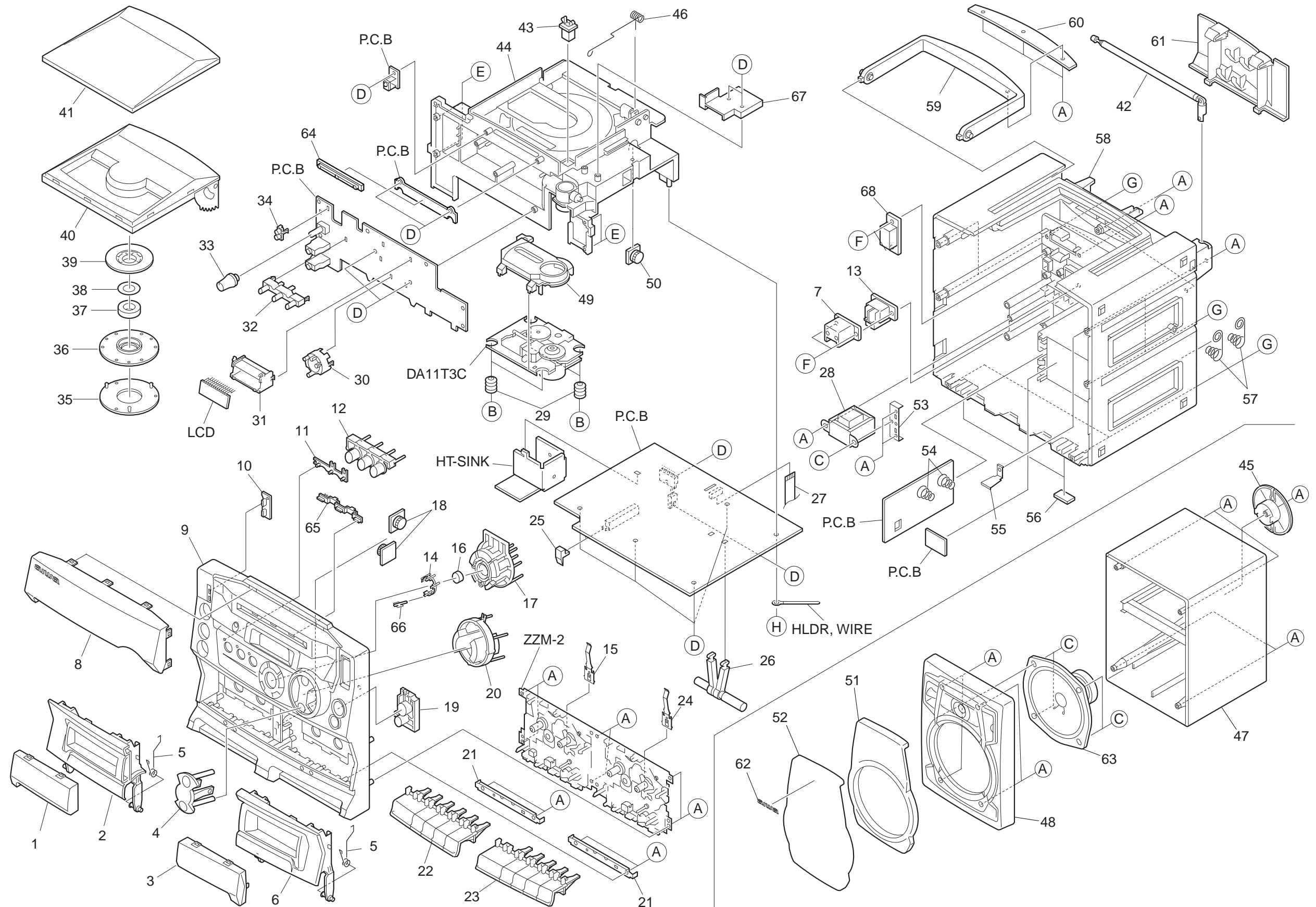
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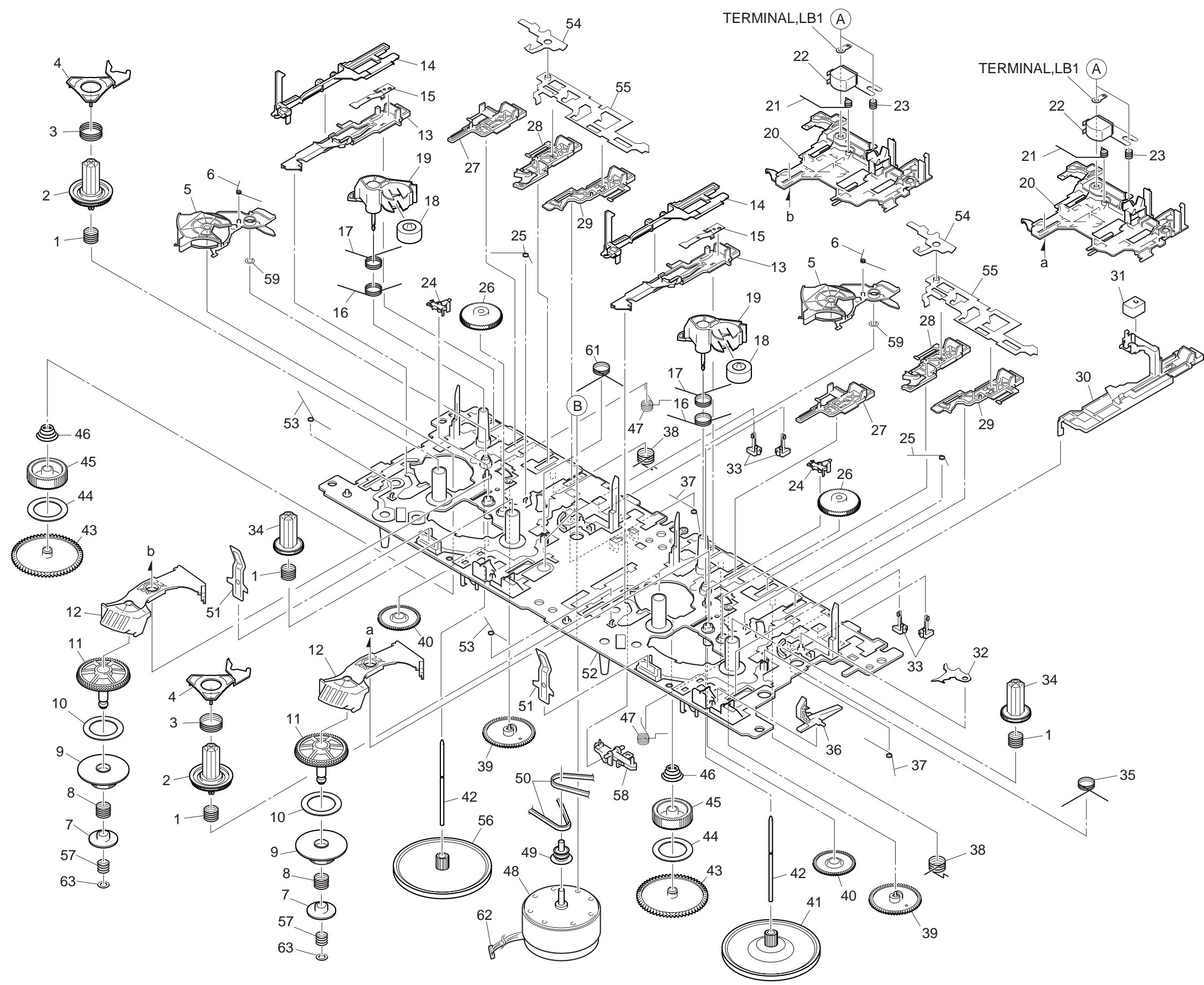
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CT9-006-010		WINDOW,CASS L	42	88-CT6-633-010		ANT, ROD
2	8A-CT9-002-010		BOX,CASS L	43	87-036-389-010		SW, PUSH LOCK<LH<S>>
3	8A-CT9-007-010		WINDOW,CASS R	44	8A-CT9-201-010		CHAS,CD
4	8A-CT9-011-010		BTN,CD A	45	86-CT9-121-010		HLDR,CORD RF
5	86-CT9-210-010		SPR-T,CASS	46	8A-CT9-212-010		SPR-T,CD
6	8A-CT9-003-010		BOX,CASS R	47	86-CT9-117-010		CABI,SPKR-REAR L RF
7	87-A90-086-010		COVER,AC-SOCKET<U<S>>	47	86-CT9-118-010		CABI,SPKR-REAR R RF
8	8A-CT9-008-010		WINDOW,DISP	48	8A-CT9-024-010		CABI,SPKR FR
9	8A-CT6-004-010		CABI,FR LH<LH<S>>	48	8A-CT9-025-010		CABI,SPKR FR R
9	8A-CT6-001-010		CABI,FR U<U<S>>	49	88-CT6-046-010		PANEL,CD
10	8A-CT9-021-010		LENS,POWER	50	87-063-164-010		OIL-DMPR 80
11	8A-CT9-020-010		LENS,FUNC	51	8A-CT9-027-010		FRAME,SPKR NET
12	8A-CT9-010-010		KEY,FUNC	52	8A-CT9-030-010		NET,SPKR
13	87-A60-178-010		JACK, AC E W/SW<LH<S>>	53	86-CT9-206-010		HLDR,TRANS<U<S>>
13	87-A60-177-010		JACK, AC U W/SW<U<S>>	54	86-CT9-213-010		SPR-C,BATT(-)
14	8A-CT9-022-010		LENS,GEQ	55	86-CT9-207-010		HLDR,ANT
15	8A-CT9-215-010		SPR-P,REC A	56	86-CT9-223-010		CUSH,FOOT
16	8A-CT9-023-010		BTN,QSOUND<U<S>>	57	86-CT9-212-010		SPR-C,BATT LINK
17	8A-CT9-016-010		BTN,GEQ<U<S>>	58	8Z-CT9-044-010		CABI,REAR
17	8A-CT9-051-010		BTN,GEQ LH<LH<S>>	59	86-CT6-036-010		HANDL,RF
18	87-063-165-010		OIL-DMPR 150	60	88-CT6-022-010		COVER, HNDL
19	8A-CT9-015-010		BTN,VOL	61	86-CT6-035-010		LID,BATT RF
20	8A-CT9-012-010		BTN,CD B	62	86-CT9-040-010		BADGE,AIWA -
21	86-CT9-208-010		HLDR,KEY CASS	63	8A-CT6-606-010		SPKR, 100 3.2HM 5W
22	8A-CT9-013-010		KEY,CASS L	64	8A-CT6-202-010		HLDR,LED GEQ
23	8A-CT9-014-010		KEY,CASS R	65	8A-CT6-022-010		LENS LED GEG
24	8A-CT9-216-010		SPR-P,REC B	66	8A-CT6-014-010		LENS SURROUND
25	86-CT9-205-110		HLDR,REC	67	8A-CT6-201-010		CHAS TU
26	88-CD6-661-010		HLDR,BAR ANT.	68	87-A91-302-010		SW,AC SL 2 2 2 SDKGA40100<LH<S>>
27	88-CT6-606-010		FFC WIRE 16P(1.0)	A	87-751-097-410		SCREW 3X12
△	28	88-CT6-631-010	PT, H<LH<S>>	B	81-CD5-204-010		SCREW CD
△	28	88-CT7-629-010	PT, U<U<S>>	C	87-751-095-410		VT2+3-8 W/O
	29	88-CH6-220-010	CUSHION,CD A	D	87-571-095-410		VIT+3-8
	30	8A-CT9-211-010	HLDR,GEQ	E	87-651-100-410		VT1+3-16
	31	8A-CT9-205-010	HLDR,LCD	F	87-651-075-210		VT1+2.6-10
	32	8A-CT9-203-010	HLDR,FUNC	G	87-651-104-410		VT1+3-30
	33	8A-CT9-017-010	KNOB, RTRY MIC	H	87-721-095-410		QT2+3-8GLD W/O SLOT
	34	8A-CT9-204-010	HLDR,POWER				
	35	8Z-CT6-214-010	RING,CHUCK				
	36	8Z-CT6-213-010	BASE,CHUCK				
	37	87-036-368-010	MAGNET				
	38	86-CT9-222-010	PLATE,MAGNET				
	39	86-CT9-217-010	HLDR, CHUCK A(S)				
	40	8A-CT9-004-010	BOX,CD				
	41	8A-CT9-005-010	WINDOW,CD				

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange		



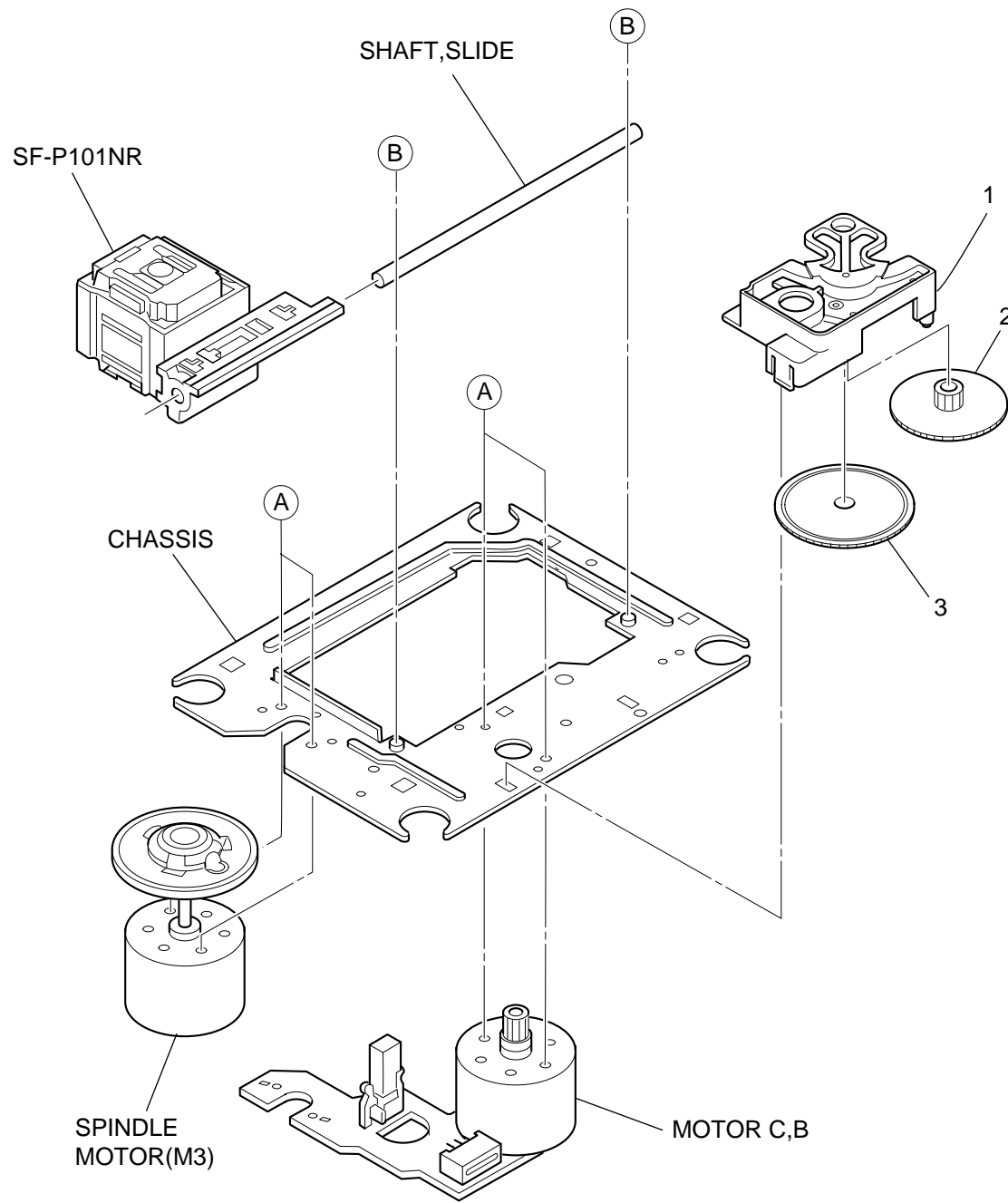


TAPE MECHANISM PARTS LIST 1/1

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REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM1-254-210		SPR-C, REEL R	34	8Z-ZM1-226-010		GEAR, REEL L
2	8Z-ZM1-225-110		GEAR, REEL R	35	8Z-ZM1-241-010		SPR-T, PLAY
3	8Z-ZM1-253-110		SPR-C, AUTO SENSOR	36	8Z-ZM1-220-110		LEVER, REC SENSOR
4	8Z-ZM1-217-110		LEVER, AUTO SENSOR	37	8Z-ZM1-249-010		SPR-T, FR
5	8Z-ZM1-212-110		LEVER, T-UP	38	8Z-ZM1-242-110		SPR-T, FF/REW
6	8Z-ZM1-245-010		SPR-T, AUTO	39	8Z-ZM1-229-010		GEAR, CAM
7	8Z-ZM1-236-010		CLR, SLIP FF/REW	40	8Z-ZM1-232-010		GEAR, IDL FF/REW
8	8Z-ZM1-252-010		SPR-C, FF/REW	41	8Z-ZM1-234-010		FLY-WHL, ZZM-1
9	8Z-ZM1-230-010		GEAR, SLIP FF/REW A	42	8Z-ZM1-267-010		SHAFT, CAPSTAN 2
10	8Z-ZM1-269-010		FELT, FF/REW 2	43	8Z-ZM1-228-010		GEAR, SLIP T-UP B
11	8Z-ZM1-238-110		GEAR, SLIP FF/REW B 2	44	8Z-ZM1-265-010		FELT, T-UP
12	8Z-ZM1-237-010		LEVER, FF/REW 2	45	8Z-ZM1-227-010		GEAR, SLIP T-UP A
13	8Z-ZM1-209-210		LEVER, PAUSE	46	8Z-ZM1-251-110		SPR-C, T-UP SLIP
14	8Z-ZM1-218-110		LEVER, E-LOCK H	47	8Z-ZM1-243-210		SPR-T, STOP/PAUSE
15	8Z-ZM1-256-010		SPR-P, PAUSE	48	87-A91-532-010		MOT, MS15U2LW1A
16	8Z-ZM1-244-010		SPR-T, T-UP	49	8Z-ZM1-235-010		PULLEY, MOT
17	8Z-ZM1-247-210		SPR-T, PINCH	50	8Z-ZM2-216-010		BELT, MAIN M
18	8Z-ZM1-261-110		ROLLER ASSY, PINCH	51	8Z-ZM1-260-010		SPR-P, CASSETTE
19	8Z-ZM1-221-010		LEVER, PINCH	52	8Z-ZM2-201-010		CHAS ASSY, ZZM-2
20	8Z-ZM1-205-210		LEVER, PLAY	53	8Z-ZM1-255-110		SPR-T, E-LOCK
21	8Z-ZM1-248-110		SPR-T, BRG	54	8Z-ZM2-219-010		LEVER, E-OPEN ZZM-2
22	87-A90-403-110		HEAD, RPH MS15R	55	8Z-ZM1-214-110		LEVER, LOCK
23	84-ZM2-227-310		SPR-C, AZIMUTH	56	8Z-ZM2-211-010		FLY-WHL, ZZM-2
24	8Z-ZM1-216-010		LEVER, AUTO	57	8Z-ZM1-257-110		SPR-C, F/R
25	8Z-ZM1-246-010		SPR-T, AUTO 2	58	8Z-ZM2-210-010		LEVER, BRIDGE<YR2NF, YR3NF>
26	8Z-ZM2-214-010		GEAR, IDL REW ZZM-2	59	80-ZM6-243-010		SH 1.75-3.6-0.5 SLT
27	8Z-ZM2-212-010		LEVER, STOP ZZM-2	60	87-A91-494-010		SW, LEAF MSW17820<YR1NF, YR2NF>
28	8Z-ZM1-207-010		LEVER, FF	61	8Z-ZM1-241-010		SPR-T, PLAY<YR1NF>
29	8Z-ZM1-206-010		LEVER, REW	61	8Z-ZM2-217-010		SPR-T, PLAY 2<YR2NF, YR3NF>
30	8Z-ZM1-210-010		LEVER, REC<YR1NF>	62	8Z-ZM2-601-010		CONN ASSY, 9P ZZM-2<YR1NF>
30	8Z-ZM1-211-110		LEVER, REC 2<YR2NF, YR3NF>	63	8Z-ZM1-275-010		W-L, 1.47-4-0.25
31	87-A90-404-010		HEAD, EH LE15B<YR1NF>	A	84-ZM2-242-010		S-SCREW, AZ1-2-6.4
31	87-A91-533-010		HEAD, EH PH-K380<YR2NF, YR3NF>	B	8Z-ZM2-220-110		V+2.6 ZZM-2
32	8Z-ZM2-218-010		LEVER, REC LOCK ZZM-2				
33	87-A91-492-010		SW, LEAF MSW18560				

CD MECHANISM EXPLODED VIEW 1/1



CD MECHANISM PARTS LIST 1/1

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REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S2-121-A28-400		COVER GEAR
2	S2-511-A21-000		GEAR MIDDLE
3	S2-511-A21-100		GEAR, DRIVE
A	S1-PN2-03R-0SE		SCR PAN PCS 2-3
B	87-261-073-410		SCR S-TPG FLT 2.6-6
ALL	M8-ZZK-E90-070		DA11T3C

